



Title: COLLAPSIBLE/FLEXIBLE POURING ATTACHMENT

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SPECIFICATIONS

Descriptive Title of the Invention:

Collapsible/Flexible Pouring Attachment

This Non-Provisional Utility patent application replaces U.S. Provisional Utility patent application serial no. 60/447,308.

Cross-reference(s) to related application(s):

This application is related to U.S. Patent Serial No. 29/183,474, granted December 2, 2003 and U.S. Provisional Utility patent application serial no. 60/447,308.

Statement regarding Federal Sponsored Research and Development:

No Federal Sponsored Research and Development monies funded this patent application or the related patent and patent application.

Background of the Invention:

Bottles/containers containing automotive lubricants, household chemicals, agricultural products and the like are ill equipped to dispense without an exterior dispensing device. Exterior dispensing devices on the market (e.g. funnels, valves, tubes) are limited. They are rigid, i.e. not adaptable or flexible; they are restricted in length/range, e.g. regarding motor oil, a funnel flask can dispense into an engine's crankshaft, but it cannot reach the transmission intake; they require cleaning and storage for reuse, i.e. the value is locked into the number of uses and accessibility;

and they are sold-separately from the bottle/container, e.g. when a consumer purchases motor oil, outside of having a funnel readily available, the consumer cannot effectively dispense the oil.

Brief Summary of the Invention:

The *Collapsible/Flexible Pouring Attachment* is applicable to the following markets: agricultural, automotive, aviation household, marine and water/beverage. It is flexible, retractable, collapsible, conceal-able and attachable. The bellowed tubular section enables the invention to extend to various lengths and to reach difficult angles, as well as maintain a 'locked' position such that it does not move unless forcibly impacted. The dual threaded base enables the invention to secure to both a bottle/container's threaded opening (exterior) and a cap (interior) with the same point of connection. This invention can be attached separately from the cap, as a spout, or as a single unit, wherein the bellowed tubular section is securely attached to the interior of a cap.

This invention circumvents all of the deficiencies of external dispensers. Some of which are:

- a) External dispensers are not always available;
- b) They are not adaptable, i.e. there is a separate and different dispenser required per type of application;
- c) The value of the external dispenser is locked into the number of uses; and
- d) They are difficult to clean and must be stored for reuse.

The *Collapsible/Flexible Pouring Attachment* overcomes these barriers.

Brief Description of the Several Views of the Drawings:

The broken lines in the Figures are for illustrative purposes only and form no part of the claimed invention. A description of each of the figures of the drawings is as follows:

Figure 1 is a top perspective view of the collapsible/flexible pouring attachment in the collapsed position;

Figure 2 is a bottom perspective view of the collapsible/flexible pouring attachment in an inverted position to illustrate the internal threads of the attachment;

Figure 3 is a perspective view of the collapsible/flexible pouring attachment in an expanded and flexed position;

Figure 4 is a side view of the collapsible/flexible pouring attachment in Fig. 1 being illustrated with a conventional closure cap;

Figure 5 is a perspective view of the collapsible/flexible pouring attachment in a collapsed position disposed on a fluid container in addition to the closure cap;

Figure 6 is a perspective view of the collapsible/flexible pouring attachment disposed on a fluid container and drawn to an expanded and flexed position; and

Figure 7 is a side view of the collapsible/flexible pouring attachment disposed on a fluid container in the collapsed position and covered by a closure cap.

Detailed Description of the Invention:

There are several U.S. patented inventions that address the same or similar problem of fluid dispensing. A detailed summary, identifying those patents, is contained in the *Information Disclosure Statement of Applicant* document of this application. As a matter of principle and

law, every attempt was made to list all U.S. patented inventions with related and relevant features and/or functionalities pertaining to this utility patent application. However, none of these patented inventions provide the functionalities of the invention for which this utility patent application claims as an original invention.

There are two U.S patents that warrant a closer examination. For instance, U.S. patent serial no. 6,112,949 has multiple caps: “an inner cap connected to a bottle and an outer cap is detachably connected to the inner cap” it has “...a gasket inside the inner cap and sealing against the end of the dispenser tube...” and “...the outer cap is connected to the inner cap by a bayonet fitting...” This invention is a complex assembly of dual caps, a gasket, a tube, and a bayonet fitting.

The other U.S. patented invention worthy of a closer examination is U.S. patent serial no. 4,921,147. It is similar to U.S. Patent serial no. 6,112,949 in they share a tube that is attached to a bottleneck by a gasket: “a main elongated tubular section, a connector member fixed at one end of the said tubular section and releasable secured to said outlet.”

The fundamental differences between U.S. Patent serial no. 6,112,949 and U.S. Patent serial no. 4,921,147 and the original invention claimed in this utility patent application, entitled *Collapsible/Flexible Pouring Attachment*, are:

- a) The *Collapsible/Flexible Pouring Attachment* is a simple assembly: a bellowed tubular section, having a dual threaded base (internal/external thread); this is unlike U.S. Patents serial no. 6,112,949 and U.S. Patents serial no. 4,921,147.
- b) The *Collapsible/Flexible Pouring Attachment* has a single point of connection between the cap and the bottleneck, which is the dual threaded base of the bellowed tubular

section, which is a unique feature. U.S. Patents serial no. 6,112,949 has two caps, connecting at several different points (1. the tube and the gasket, 2. the outer cap and the inner cap, 3. the bayonet fitting and the tube and 4. the inner cap and the bottleneck).

U.S. Patent serial no. 4,921,147 has two connecting points neither includes a cap.

- c) The *Collapsible/Flexible Pouring Attachment* performs its functions without the introduction of additional parts, i.e. the bellowed tubular section, having a dual threaded base, can attach to a bottleneck and perform the function of a pouring spout. Whereas, neither U.S. Patents serial no. 6,112,949 and U.S. Patents serial no. 4,921,147 performs a single function without its assembled parts.
- d) U.S. Patents serial no. 6,112,949 and U.S. Patents serial no. 4,921,147 both have a tube; however, it must be attached using gasket or connector. The *Collapsible/Flexible Pouring Attachment* is not attached by a gasket or connector; and
- e) The *Collapsible/Flexible Pouring Attachment's* assembly is unique, as well. The dual threaded base of the bellowed tubular section enable it to be secured to a cap's interior thread, thereby concealing the bellowed tubular section beneath a cap.

As illustrated in Fig. 1 and Fig. 2, the *Collapsible/Flexible Pouring Attachment* performs the functions of a spout and an attachment. The dual threaded base (21 and 22) enable the bellowed tubular section (20) to attach to a threaded bottleneck void of an external apparatus.

As illustrated in Fig. 3, the *Collapsible/Flexible Pouring Attachment* can maintain an angled position, whereby the bellowed tubular section (20) does not move unless forcibly impacted. This enables the *Collapsible/Flexible Pouring Attachment* to reach otherwise difficult to access openings.

As illustrated in Fig. 4 and Fig. 5, the *Collapsible/Flexible Pouring Attachment* can be neatly concealed beneath a cap (23); this feature of the original invention offers tremendous advantages for mass production. Because the *Collapsible/Flexible Pouring Attachment* can be concealed beneath a cap, capping machinery can manipulate (rotate and position) the *Collapsible/Flexible Pouring Attachment*, as if it was a single unit and not two assembled components. Having a single point of connection between a cap (23) and a bottle (24), the *Collapsible/Flexible Pouring Attachment* mirrors the existing relationship between a bottle (24) and a cap (23) in the current production environment.

As illustrated in Fig. 7, the bellowed tubular section (20) is in the collapsed and concealed position, which is the position this original invention will be presented to consumers. This original invention does not alter the mechanics of the bottle; therefore, consumers will require minimal instruction to use the *Collapsible/Flexible Pouring Attachment*. There is little-to-no learning curve to introduce this original invention.